

DISCLOSURE OF THE ABSTRACT

It is an object of the present invention to reduce the constraint that the density ratio is constant as small as possible, and to obtain high power recovering effect in a wide operation range. A refrigeration cycle apparatus uses carbon dioxide as refrigerant and has a compressor, an outdoor heat exchanger, an expander, an indoor heat exchanger and an auxiliary compressor. The auxiliary compressor is driven by power recover by the expander. When refrigerant flows using the indoor heat exchanger as an evaporator, a discharge side of the auxiliary compressor becomes a suction side of the compressor, and when refrigerant flows using the indoor heat exchanger as a gas cooler, a discharge side of the compressor becomes a suction side of the auxiliary compressor.